

## CLAIMS

What is claimed is:

1. A cartridge chassis assembly for an inkjet printer, comprising:  
an adjustable vertical member for sizing the chassis assembly to the inkjet printer;  
a signal converter that senses a first printhead signal and converts the first printhead signal into a second printhead signal; and  
a piezo-electric printhead that ejects ink at least partly as a function of the second printhead signal.
2. The cartridge chassis assembly of claim 1, further comprising an ink tank receiving area sized and dimensioned to house an ink tank that cooperates with the piezo-electric printhead.
3. The cartridge chassis assembly of claim 1, wherein the adjustable vertical member has a contact ridge that is readily removable such that the chassis assembly adjusts to fit a chassis receiving area.
4. The cartridge chassis assembly of claim 1, wherein the piezo-electric printhead houses the signal converter.
5. The cartridge chassis assembly of claim 1, wherein signal drivers are resident in the printer's electronics.
6. The cartridge chassis assembly of claim 5, wherein the first printhead signal is an analog signal.
7. The cartridge chassis assembly of claim 1, wherein the signal converter is configured to sense a printer model and driver type.
8. A method of using a piezo-electric driven printhead in a printer having a thermal printhead configuration, comprising:  
coupling the piezo-electric driven printhead to the printer; and  
converting a thermal printhead signal to a piezo-electric printhead signal.
9. The method of claim 8, further comprising a step of polling an associated computer for a printer driver.

10. The method of claim 9, further comprising a step of setting a driver type in an internal register.
11. The method of claim 10, further comprising selecting conversion parameters based at least in part on the printer driver.
12. The method of claim 11, wherein the step of converting further comprises sensing and adjusting to a carriage speed.
13. The method of claim 12, wherein the step of converting further comprises calculating a drop velocity.
14. The method of claim 13, wherein the step of converting further comprises calculating a drop firing pulse repetition rate.
15. The method of claim 14, wherein the step of converting further comprises determining which piezo-electric printhead nozzles to fire to construct a single dot.
16. The method of claim 15, further comprising a step of estimating an ink level by counting dots of a vertical dot pattern.
17. A signal converter configured to convert thermal printhead signals into piezo-electric printhead signals.

**[Received by the International Bureau on 10 January 2003 (10.01.03):  
original claims 1-17 replaced by amended claims 1-18]**

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1. A cartridge chassis assembly for an inkjet printer, comprising:  
an adjustable vertical member for sizing the chassis assembly to the inkjet printer;  
a signal converter that senses a first printhead signal and converts the first printhead signal into a second printhead signal; and  
a piezo-electric printhead that ejects ink at least partly as a function of the second printhead signal.
2. The cartridge chassis assembly of claim 1, further comprising an ink tank receiving area sized and dimensioned to house an ink tank that cooperates with the piezo-electric printhead.
3. The cartridge chassis assembly of claim 1, wherein the adjustable vertical member has a contact ridge that is readily removable such that the chassis assembly adjusts to fit a chassis receiving area.
4. The cartridge chassis assembly of claim 1, wherein the piezo-electric printhead houses the signal converter.
5. The cartridge chassis assembly of claim 1, wherein signal drivers are resident in the printer's electronics.
6. The cartridge chassis assembly of claim 5, wherein the first printhead signal is an analog signal.
7. The cartridge chassis assembly of claim 1, wherein the signal converter is configured to sense a printer model and driver type.
8. A method of using a piezo-electric driven printhead in a printer having a thermal printhead configuration, comprising:  
coupling the piezo-electric driven printhead to the printer; and  
converting a thermal printhead signal to a piezo-electric printhead signal.
9. The method of claim 8, further comprising a step of polling an associated computer for a printer driver.

10. The method of claim 9, further comprising a step of setting a driver type in an internal register.
11. The method of claim 10, further comprising selecting conversion parameters based at least in part on the printer driver.
12. The method of claim 11, wherein the step of converting further comprises sensing and adjusting to a carriage speed.
13. The method of claim 12, wherein the step of converting further comprises calculating a drop velocity.
14. The method of claim 13, wherein the step of converting further comprises calculating a drop firing pulse repetition rate.
15. The method of claim 14, wherein the step of converting further comprises determining which piezo-electric printhead nozzles to fire to construct a single dot.
16. The method of claim 15, further comprising a step of estimating an ink level by counting dots of a vertical dot pattern.
17. A signal converter configured to convert thermal printhead signals into piezo-electric printhead signals.
18. (Added) A printer comprising the cartridge chassis assembly of claim 1.